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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,849	07/29/2005	Masayuki Yoshii	26431 IUS2PCT	8633
22850	7590	09/22/2006	EXAMINER	
C. IRVIN MCCLELLAND OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			HINES, ANNE M	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/519,849	YOSHII ET AL.	
	Examiner	Art Unit	
	Anne M. Hines	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/13/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Kojima et al. (US 2002/0047574) (of record).

Regarding claim 1, Kojima discloses an image display unit comprising a cathode substrate with an electron source for emitting electrons (Fig. 12, 40; Page 11, Paragraph [0247]) and an anode substrate disposed to oppose the cathode substrate (Fig. 11, 20; Page 11, Paragraph [0250]), a grounding section formed on the peripheral edge of the transparent substrate (Fig. 11, 80; Page 12, Paragraphs [0257]-[0259]), a phosphor layer which is formed on the inner surface of the transparent substrate and excited by electrons emitted from the electron source to emit light (Fig. 11, 22; Page 11, Paragraph [0250]), a metal back layer to which a high voltage is applied to accelerate the electrons (Fig. 11, 23; Page 11, Paragraph [0250]), and a high-resistance section which is disposed between the metal back layer and the grounding section to surround the outer peripheral edge of the metal back layer (Fig. 11, 82; Page 12, Paragraphs [0271]-[0272]); and wherein the high resistance section has a surface roughness of 1.0 to 15 μm (Page 12, Paragraph [020271]). Note that the Examiner considers it inherent

Art Unit: 2879

that the substrate 20 is transparent since substrate 20 is the viewing surface of the display device.

Regarding claim 2, Kojima further discloses wherein the high-resistance section comprises plural regions with a surface roughness between 1.0 to 15 μm (Fig. 10, 80; Fig. 11, 82; Page 12, Paragraph [0257]; Page 12, Paragraph [0260]; Structure 82 is between the ground 80 and the image region 12 at the plural regions on each side of the image region 12), and these regions are disposed to increase their surface roughness sequentially from the side close to the outer peripheral edge of the metal back layer toward the side away from it (The height (ie surface roughness) of 82 increases from the side close to the metal back layer toward the side away from it for half of the distance).

Regarding claim 3, Kojima discloses an image display unit comprising a cathode substrate with an electron source for emitting electrons (Fig. 12, 40; Page 11, Paragraph [0247]) and an anode substrate disposed to oppose the cathode substrate (Fig. 11, 20; Page 11, Paragraph [0250]), a grounding section formed on the peripheral edge of the transparent substrate (Fig. 11, 80; Page 12, Paragraphs [0257]-[0259]), a phosphor layer which is formed on the inner surface of the transparent substrate and excited by electrons emitted from the electron source to emit light (Fig. 11, 22; Page 11, Paragraph [0250]), a metal back layer to which a high voltage is applied to accelerate the electrons (Fig. 11, 23; Page 11, Paragraph [0250]), and a high-resistance section which is disposed between the metal back layer and the grounding section to surround the outer peripheral edge of the metal back layer (Fig. 11, 82; Page 12, Paragraphs

Art Unit: 2879

[0271]-[0272]); and wherein the high resistance section has a high resistance coating layer with a surface resistivity of 1×10^9 to $1 \times 10^{15} \Omega/\text{square}$ (Page 12, Paragraph [0272]). Note that the Examiner considers it inherent that the substrate 20 is transparent since substrate 20 is the viewing surface of the display device. Note also, the high-resistance coating of polybenzimidazole (PBI) inherently has a surface resistance within the claimed range (See provided material properties of PBI).

Regarding claim 4, Kojima further discloses wherein the high-resistance section has a rough surface section with a surface roughness of 1.0 to 15 μm (Page 12, Paragraph [020271]), and the high-resistance coating layer is formed on the rough surface section (Page 12, Paragraph [0272]).

Regarding claim 15, Kojima further discloses wherein the high-resistance section comprises plural regions with a surface resistivity of 1×10^9 to $1 \times 10^{15} \Omega/\text{square}$ (Page 12, Paragraph [0272]; Fig. 10, 80; Fig. 11, 82; Page 12, Paragraph [0257]; Page 12, Paragraph [0260]; Structure 82 is between the ground 80 and the image region 12 at the plural regions on each side of the image region 12), and these regions are disposed to increase their surface resistivity sequentially from the side close to the outer peripheral edge of the metal back layer toward the side away from it (The height (ie surface roughness) which corresponds to the surface resistivity of 82 increases from the side close to the metal back layer toward the side away from it for half of the distance).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne M. Hines whose telephone number is (571) 272-

Art Unit: 2879

2285. The examiner can normally be reached on Monday through Friday from 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anne M Hines
Patent Examiner
Art Unit 2879

Amh
9/18/06

msk
MARICELI SANTIAGO
PRIMARY EXAMINER